AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Ice detection assembly intended to be installed on an aircraft, comprising a vibrating finger and a mast, the vibrating finger extending into the air from the mast and capable of being vibrated by vibration means at a resonant frequency that is sensitive to an ice deposit on its surface, comprising a cooling system capable of cooling at ~~feast~~ least part of the ~~detection assembly~~vibrating finger.

2. (Original) Ice detection assembly according to claim 1, wherein the cooling system comprises a compression 1 expansion heat pump system.

3. (Original) Ice detection assembly according to claim 1, wherein the cooling system comprises a Peltier effect system.

4. (Original) Ice detection assembly according to claim 1, wherein the finger comprises at least part of the said cooling system.

5. (Previously Presented) Ice detection assembly according to claim 4, wherein the finger comprises at least two openings connected by at least one crossing channel so as to create a cooling air flow capable of locally cooling the surface of the finger, thus forming at least partly the said cooling system.

6. (Previously Presented) Ice detection assembly according to claims 1, 2, 3, 4 or 5 further comprising a flexible membrane device installed on the mast, the vibrating membrane being capable of being vibrated by vibration means at a resonant frequency sensitive to an ice deposit on its surface and being cooled by at least part of the said cooling system.

7. (Previously Presented) Ice detection assembly according to claim 6, wherein the membrane device is located on a leading surface of the mast, in other words a surface of the mast facing the air flow.

8. (Previously Presented) Ice detection assembly according to claim 7, wherein the leading surface of the mast is bevelled, the surface of the bevel being at a determined angle from the direction of the air flow.

9. (Previously Presented) Ice detection assembly according to claim 8, wherein the said bevelled surface is concave.

10. (Original) Ice detection assembly according to claim 6, wherein the membrane device is located on a side of the mast, in other words on a lateral surface with respect to a surface of the mast (120) facing the air flow.

11. (Original) Ice detection assembly according to claim 4, comprising a temperature sensor capable of measuring the temperature of the finger.

12. (Original) Ice detection assembly according to claim 4, comprising a temperature sensor capable of measuring a temperature representative of the temperature of the membrane.

13. (Original) Ice detection assembly according to claim 1, 11 or 12, wherein comprising at least one temperature sensor capable of measuring a temperature representative of the total or static temperature of the surrounding air, connected to means for controlling the cooling system.

14. (Original) Ice detection assembly according to claim 6, wherein comprising at least one temperature sensor capable of measuring a temperature representative of the total or static temperature of the surrounding air, connected to means for deciding which one of the finger or the membrane will supply ice-detection data to means of processing, this decision depending on temperature date supplied by the at least temperature sensor.

15. (Previously Presented) Ice detection assembly according to claim 14, wherein, when the temperature measured by the at least sensor is less than about -5°C, data from the finger

will be supplied to the processing means, and for higher temperatures, data from the membrane will be supplied to the processing means.

16. (Previously Presented) Ice detection assembly according to claim 1, further comprising a de-icing system.

17. (Previously Presented) Ice detection assembly according to claim 16, wherein de-icing of the de-icing system and cooling of the cooling system are performed by the same device.